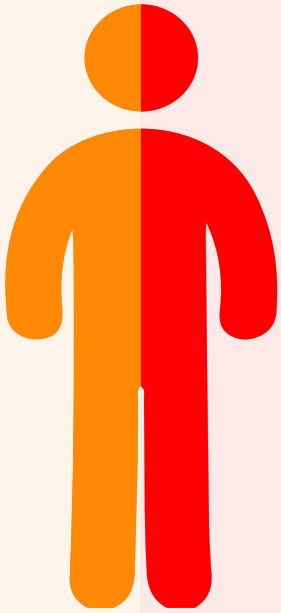
# HEAT HEALTH AND SAFETY
## MICHIGAN SUMMER WEATHER

**This fact sheet explains some of the health effects of excessive heat. Read on for more information about heat-related illness and how you can protect yourself and your family when it is hot outside.**

## Health Risks of Hot Weather

When it is very hot, there is an increased risk of heat-related illness. The body's temperature rises and cannot be cooled by sweating or the other ways the body cools itself. The most severe heat-related illnesses are heat exhaustion and heat stroke. If not treated, heat exhaustion can worsen and cause heat stroke or death. The figure below shows common symptoms of heat exhaustion and heat stroke.

### Types of heat-related illness



**Heat Exhaustion Symptoms**

- Faint or dizzy
- Excessive sweating
- Cool, pale clammy skin
- Nausea or vomiting
- Rapid pulse
- Muscle cramps

**Heat Stroke Symptoms**

- Confusion, disorientation
- Very high body temperature
- Red, hot skin may be dry or sweaty
- Nausea or vomiting
- Rapid pulse
- May lose consciousness

### What to do for heat exhaustion

- Move to a cool place.
- Loosen clothing.
- Put cool, wet cloths on body or take a cool bath.
- Drink cool water.

**Get medical help if any of the following happen:**

- Person throws up or cannot drink.
- Symptoms get worse.
- Symptoms last longer than one hour.

### What to do for heat stroke

- **Call 911 right away.**
- Move the person to a cooler place.
- Help lower the person's temperature with cool cloths or cool bath.

# At-Risk Groups

## Who is most at risk for heat-related illness?

- People older than 65
- Outdoor workers
- Low-income individuals and families
- Infants and children
- People who live alone
- People without air conditioning
- People who exercise outside
- People with chronic conditions (e.g., diabetes, cardiovascular disease, and respiratory disease)

## For people with chronic medical conditions or taking medications

- Talk with your primary care provider about how to monitor and protect yourself during extreme heat.

## For outdoor workers

- Drink plenty of water.
- Wear and reapply sunscreen as indicated on the package.
- Ask if tasks can be scheduled for earlier or later in the day to avoid midday heat.
- Check out the CDC/National Institute for Occupational Health and Safety (NIOSH) Heat Stress webpage for more information (URL: bit.ly/NIOSH-Heat-Stress).

## For people without air conditioning

- Use a buddy system - check on a friend or neighbor and have someone do the same for you.
- If someone in the home is at least 55 years old, or if air conditioning is medically necessary, apply for State Emergency Relief (SER) by visiting MI Bridges (URL: bit.ly/MiBridges-SER).
- Text or call Michigan 211 (URL: mi211.org) or contact your local health department to locate a cooling center (a public space set up by local government during hot weather) and air-conditioned shelters in your area.
- Spend some time at a shopping mall, public library, or other public buildings — even a few hours spent in air conditioning can help.

## Children, People with Disabilities, and Pets in Cars

It only takes **two minutes** for a car to reach unsafe temperatures. Every year children and pets left in parked vehicles die from heat stroke.[1] Heat stroke is the leading cause of non-crash, vehicle-related deaths in children under 15.[2]

- Never leave a child, a person with a disability, or pet in your car, even if the windows are open.
- Even the most caring and watchful person can forget a child or pet is in the vehicle. Always check to make sure all children and pets are out of the car before locking it and walking away.
- Teach children that cars are not safe places to play. Store your keys out of reach of children.
- Leave pets at home when you can.

**A child's body warms three to five times faster than an adult's.**

**Never leave infants, children, or pets in a parked car.**

## How Can I Protect Myself?

### Stay Cool

#### Tips for staying cool

- Limit your time in the heat.
- When it is above 90° F, find somewhere with air conditioning or take cool showers or baths. Don't rely on electric fans to stay cool.
- Wear loose, lightweight, light-colored clothing.
- Avoid direct sunlight.
- Watch the forecast. Give yourself time to adjust to the hot weather.

### Stay Hydrated

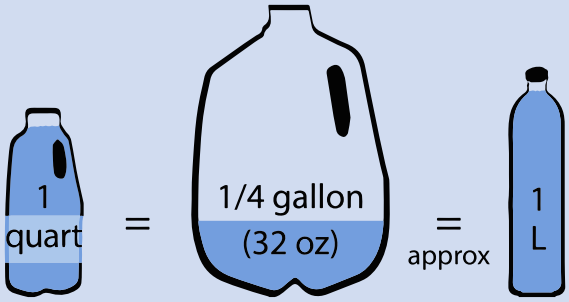
#### Tips for staying hydrated

- Drink more water than usual.
- Drinking more often is better than drinking large amounts infrequently.
- Drink before you get thirsty.
- Avoid alcohol or liquids that have high amounts of sugar and/or caffeine.

Drinking **WATER** is the best way to stay hydrated while working in the heat.

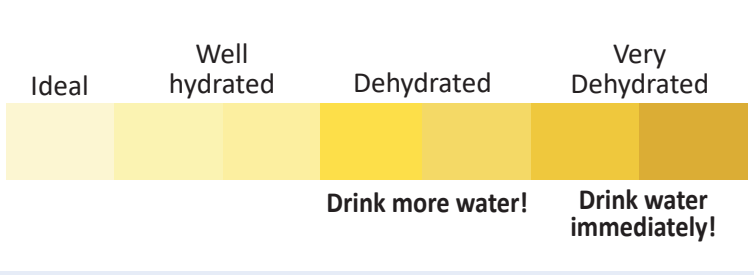
It is also important to eat regular meals that replace the salt lost from sweating.

**When working or being active in the heat, drink about one cup of water every 15–20 minutes. Drink about one quart of water per hour.[2]**




#### The urine color test

The color of your urine can tell you if you should be drinking more water. If you are well hydrated, your urine will be a very light yellow. The more dehydrated you are the darker your urine will be.[3]



## Explore Michigan Data

- Visit the MiTracking Program site (URL: michigan.gov/mitracking) and select the "Explore Data" button for Michigan data on heat illness and extreme heat.
  - For **heat-related illness data,** select the "Health" category and "Heat illness" content area.
  - For **extreme heat data,** select the "Environment" category, "Climate change" content area, and "Extreme heat (historical data)" indicator.
- Check out MICHAP's report on Excessive Heat Impacts on Health (URL: bit.ly/Heat-Impacts-Health).

# Stay Informed

## Get Alerts

- Reach out to your county or local emergency management office to see what local alert system they use.
- Pay attention to weather reports when it is hot or if a heat emergency is declared.
- Many weather phone apps also provide National Weather Service (NWS) heat alert information.

The **NWS** issues Heat Advisories and Excessive Heat Warnings when the Heat Index* is expected to rise to a dangerous level.

- A **NWS Heat Advisory** is issued in Michigan when the Heat Index value is expected to exceed 100°F for three consecutive hours, which can be extended into the night if low temperatures are in the 70s or higher. A NWS Heat Advisory may be issued for lower criteria if it is early in the season or during a multi-day heat wave.[4]
- A **NWS Excessive Heat Warning** is issued in Michigan when the Heat Index value is expected to exceed 105°F for at least three consecutive hours.[4]

*The Heat Index accounts for the combined effects of relative humidity and the actual air temperature to estimate the heat stress on the human body.

# Other Resources

Visit these webpages for more information:

- National Oceanic Atmospheric Administration's Keep your pets cool (URL: bit.ly/NWS-Keep-pets-cool).
- American Veterinary Medical Association's Pets in Vehicles (URL: bit.ly/AVMA-pets-in-cars).

# References


1. National Weather Service. Children, Pets, and Vehicles. Retrieved March 19, 2020, from weather.gov/safety/heat-children-pets.
2. American Academy of Pediatrics. Prevent Child Deaths in Hot Cars. Retrieved May 7, 2021, from healthychildren.org/English/safety-prevention/on-the-go/Pages/Prevent-Child-Deaths-in-Hot-Cars.aspx.
3. CDC. 2017. Heat Stress: Hydration. Retrieved March 23, 2021, from Heat Stress: Hydration (cdc.gov).


**Questions about information on this fact sheet?**
**Call 1-800-648-6942.**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